

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 27.03.2015

Revision: 27.03.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** *kLine Thermo Lack*
- **Article number:** 6420409
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture:** *painting*
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*DKS Technik GmbH
 Gnadenwald 90a
 A-6069 Gnadenwald
 Tel.: +43 (0) 5223 48488
 Fax.: +43 (0) 522348488-50
www.dks.at*
- **Further information obtainable from:**
*E-Mail: office@dks.at
 Tel.: +43 (0)522348488*
- **1.4 Emergency telephone number:** *Tel.: +43(0)1 4064343*

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



F+; Extremely flammable

R12: Extremely flammable.

R18-52/53-66-67: In use, may form flammable/explosive vapour-air mixture. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Warning! Pressurised container.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 27.03.2015

Revision: 27.03.2015

Trade name: *kLine Thermo Lack*Article-number: **6420409**

(Contd. of page 1)

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS02 GHS07

· **Signal word** *Danger*

· **Hazard-determining components of labelling:**

Naphtha (petroleum), hydrodesulfurized heavy benzene < 0,1 %

· **Hazard statements**

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Pressurized container: Do not pierce or burn, even after use.

P273 Avoid release to the environment.

P280 Wear protective gloves/eye protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**

Without adequate ventilation, explosive atmosphere/gas mix may be created.

Contains formaldehyde, 2-butanone oxime. May produce an allergic reaction.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

(Contd. on page 3)

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


































Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 27.03.2015

Revision: 27.03.2015

Trade name: **kLine Thermo Lack**Article-number: **6420409**

(Contd. of page 2)

CAS: 67-64-1 EINECS: 200-662-2 Reg.nr.: 01-2119471330-49-xxxx	acetone  Xi R36;  F R11 R66-67  Flam. Liq. 2, H225;  Eye Irrit. 2, H319; STOT SE 3, H336	10-25%
CAS: 106-97-8 EINECS: 203-448-7	butane  F+ R12 R18  Flam. Gas 1, H220; Press. Gas C, H280	10-25%
CAS: 115-10-6 EINECS: 204-065-8 Reg.nr.: 01-2119472128-37-xxxx	dimethyl ether  F+ R12 R18  Flam. Gas 1, H220; Press. Gas C, H280	10-25%
CAS: 74-98-6 EINECS: 200-827-9	propane  F+ R12 R18  Flam. Gas 1, H220; Press. Gas C, H280	10-25%
CAS: 64742-82-1 EINECS: 265-185-4	Naphtha (petroleum), hydrodesulfurized heavy benzene < 0,1 %  Xn R65;  N R51/53 R10-66-67  Flam. Liq. 3, H226;  Asp. Tox. 1, H304;  Aquatic Chronic 2, H411;  Acute Tox. 4, H332; STOT SE 3, H336	10-25%
CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29-xxxx	n-butyl acetate R10-66-67  Flam. Liq. 3, H226;  STOT SE 3, H336	5-10%
CAS: 108-65-6 EINECS: 203-603-9 Reg.nr.: 01-2119475791-29-xxxx	2-methoxy-1-methylethyl acetate R10  Flam. Liq. 3, H226	2,5-5%
CAS: 107-98-2 EINECS: 203-539-1 Reg.nr.: 01-2119457435-35-xxxx	1-methoxy-2-propanol R10-67  Flam. Liq. 3, H226;  STOT SE 3, H336	2,5-5%
CAS: 64742-95-6 EINECS: 265-199-0	Solvent naphtha (petroleum), light arom. benzene < 0,1 %  Xn R65;  Xi R37;  N R51/53 R10-66-67  Flam. Liq. 3, H226;  Asp. Tox. 1, H304;  Aquatic Chronic 2, H411;  STOT SE 3, H335-H336	1-2,5%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32-xxxx	xylene  Xn R20/21;  Xi R38 R10  Flam. Liq. 3, H226;  Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	1-2,5%
CAS: 96-29-7 EINECS: 202-496-6	2-butanone oxime  Xn R21-40;  Xi R41;  Xi R43 Carc. Cat. 3  Carc. 2, H351;  Eye Dam. 1, H318;  Acute Tox. 4, H312; Skin Sens. 1, H317	<1%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

GB

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 27.03.2015

Revision: 27.03.2015

Trade name: *kLine Thermo Lack*Article-number: *6420409*

(Contd. of page 3)

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media -**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Cool container with water
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** Can form explosive gas-air mixtures.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
Take note of emission threshold.
Use only in well ventilated areas.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 27.03.2015

Revision: 27.03.2015

Trade name: *kLine Thermo Lack*Article-number: *6420409*

(Contd. of page 4)

- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

67-64-1 acetone

WEL Short-term value: 3620 mg/m³, 1500 ppm
Long-term value: 1210 mg/m³, 500 ppm

106-97-8 butane

WEL Short-term value: 1810 mg/m³, 750 ppm
Long-term value: 1450 mg/m³, 600 ppm
Carc (if more than 0.1% of buta-1.3-diene)

115-10-6 dimethyl ether

WEL Short-term value: 958 mg/m³, 500 ppm
Long-term value: 766 mg/m³, 400 ppm

123-86-4 n-butyl acetate

WEL Short-term value: 966 mg/m³, 200 ppm
Long-term value: 724 mg/m³, 150 ppm

108-65-6 2-methoxy-1-methylethyl acetate

WEL Short-term value: 548 mg/m³, 100 ppm
Long-term value: 274 mg/m³, 50 ppm
Sk

107-98-2 1-methoxy-2-propanol

WEL Short-term value: 560 mg/m³, 150 ppm
Long-term value: 375 mg/m³, 100 ppm
Sk

1330-20-7 xylene

WEL Short-term value: 441 mg/m³, 100 ppm
Long-term value: 220 mg/m³, 50 ppm
Sk; BMGV

· **Ingredients with biological limit values:**

1330-20-7 xylene

BMGV 650 mmol/mol creatinine
Medium: urine
Sampling time: post shift
Parameter: methyl hippuric acid

- **Additional information:** The lists valid during the making were used as basis.

(Contd. on page 6)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 27.03.2015

Revision: 27.03.2015

Trade name: *kLine Thermo Lack*Article-number: *6420409*

(Contd. of page 5)

· 8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· Respiratory protection:

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Half mask with combination filter, class A1P2 minimum, or breathing mask with outer air supply.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves Nitrile rubber, NBR

· Penetration time of glove material

Gloves must be changed after every contamination.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

butyl rubber, 0,7mm

· Eye protection:



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:

Aerosol

Colour:

According to product specification

· Odour:

Characteristic

· Odour threshold:

Not determined.

· pH-value:

Not determined.

· Change in condition

Melting point/Melting range:

Undetermined.

Boiling point/Boiling range:

Not applicable, as aerosol.

· Flash point:

< 0 °C

Without propellant gas.

· Flammability (solid, gaseous):

Not applicable.

· Ignition temperature:

235 °C

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 27.03.2015

Revision: 27.03.2015

Trade name: *kLine Thermo Lack*Article-number: **6420409**

(Contd. of page 6)

· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	In use, may form flammable/explosive vapour-air mixture.
· Explosion limits:	
Lower:	1.5 Vol %
Upper:	18.6 Vol %
· Vapour pressure at 20 °C:	3600 hPa
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	90.7 % With propellant gas. Content given by weight.
Solids content:	9.3 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with acids, alkalis and oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** Possible in traces.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values relevant for classification:

64742-82-1 Naphtha (petroleum), hydrosulfurized heavy benzene < 0,1 %

Inhalative	LC50/4 h	13 mg/l (rat)
Quelle: Oekopro.de		

64742-95-6 Solvent naphtha (petroleum), light arom. benzene < 0,1 %

Oral	LD50	>6800 mg/kg (rat)
Dermal	LD50	>3400 mg/kg (rab)
Inhalative	LC50/4 h	>10.2 mg/l (rat)

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 27.03.2015

Revision: 27.03.2015

Trade name: *kLine Thermo Lack*Article-number: **6420409**

(Contd. of page 7)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitisation:** No sensitising effects known.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

64742-82-1 Naphtha (petroleum), hydrodesulfurized heavy benzene < 0,1 %

LC50/48h 68.2 mg/l (Pimephales promelas)
Quelle: Oekopro.de

64742-95-6 Solvent naphtha (petroleum), light arom. benzene < 0,1 %

EC50 19 mg/l (Pseudokirchneriella subcapitata) (OECD-PrüfRL 201 96h)
6.14 mg/l (daphnia) (48h)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Harmful to aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Ikke relevant.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Empty aerosols can be disposed with the ordinary waste.

· European waste catalogue

15 01 10* packaging containing residues of or contaminated by dangerous substances

· Uncleaned packaging:

- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· ADR, IMDG, IATA

UN1950

· 14.2 UN proper shipping name

· ADR

1950 AEROSOLS

· IMDG

AEROSOLS

· IATA

AEROSOLS, flammable

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 27.03.2015

Revision: 27.03.2015

Trade name: *kLine Thermo Lack*Article-number: **6420409**

(Contd. of page 8)

· **14.3 Transport hazard class(es)**· **ADR**

- **Class** 2 5F Gases.
- **Label** 2.1

· **IMDG, IATA**

- **Class** 2.1
- **Label** 2.1

· **14.4 Packing group**

- **ADR, IMDG, IATA** Void
not classified

· **14.5 Environmental hazards:**

- **Marine pollutant:** No

· **14.6 Special precautions for user**

- **Danger code (Kemler):** Warning: Gases.
-
- **EMS Number:** not classified
F-D,S-U

· **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**· **ADR**

- **Limited quantities (LQ)** 1L
- **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity
- **Transport category** 2
- **Tunnel restriction code** D

· **IMDG**

- **Limited quantities (LQ)** 1L
- **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity

· **UN "Model Regulation":**

UN1950, AEROSOLS, 2.1

GB

(Contd. on page 10)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 27.03.2015

Revision: 27.03.2015

Trade name: *kLine Thermo Lack*

Article-number: 6420409

(Contd. of page 9)

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **National regulations:**

· **Technical instructions (air):**

Class	Share in %
I	<1
NK	50-100

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

R10 Flammable.

R11 Highly flammable.

R12 Extremely flammable.

R18 In use, may form flammable/explosive vapour-air mixture.

R20/21 Harmful by inhalation and in contact with skin.

R21 Harmful in contact with skin.

R36 Irritating to eyes.

R37 Irritating to respiratory system.

R38 Irritating to skin.

R40 Limited evidence of a carcinogenic effect.

R41 Risk of serious damage to eyes.

R43 May cause sensitisation by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful; may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

· **Department issuing MSDS:** Product safety department

· **Contact:** Hr. Hamberger

(Contd. on page 11)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 27.03.2015

Revision: 27.03.2015

Trade name: kLine Thermo Lack**Article-number: 6420409**

(Contd. of page 10)

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Gas 1: Flammable gases, Hazard Category 1

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas C: Gases under pressure: Compressed gas

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

· * Data compared to the previous version altered.